

# Notice of Allowability

Application No.

09/607,403

Examiner

Samuel Broda

Applicant(s)

CHOWDHURY ET AL.

Art Unit

2123

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicants' Response dated 29 June 2004.
2. ☒ The allowed claim(s) is/are 1-34.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
SAMUEL BRODA, ESQ.  
PRIMARY EXAMINER

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1. This communication is in response to Applicants' Response to Non-Final Office Action dated 29 June 2004. Claims 1 and 16 were amended; claims 1-34 are pending.

### *Drawings*

2. New corrected (formal) drawings in compliance with 37 CFR 1.121(d) are required in this application because the application contains informal drawings. Applicants are advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### *Withdrawal of Rejections Under Sections 102, 103, and 112*

3. Applicants' arguments are sufficient to remove the rejections under Sections 102, 103, and 112.

### *Examiner's Amendment*

- 4.1 An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

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Authorization for this Examiner's amendment was given in a telephone message from Mr. John Alemanni, Reg. No. 47,384, on 22 October 2004. The first amendment to claim 1 corrects an obvious grammatical error; the second amendment to claim 1 is sufficient to overcome the prior rejection under Section 101.

4.2 The application has been amended as follows:

In Claim 1, line 1, change the claim status from:

“original”

to:

--currently amended--.

In Claim 1, line 1, change:

“method”

to:

--computerized method--.

### ***Reasons for Allowance***

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The closest prior art of record shows:

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(1) a general model of the container loading problem using a linear mixed integer programming model for packing “containers” into “cartons” (Chen et al, “An Analytical Model for the Container Loading Problem”);

(2) a spatial representation technique using spatial matrices in conjunction with a set of heuristic rules to match boxes to empty volumes in a container (Chua et al, “Constraint-Based Spatial Representation Technique for the Container Packing Problem”);

(3) an overview of algorithms used to solve knapsack problems (Pisinger, “Algorithms for Knapsack Problems”); and

(4) a method of placing rectangular objects in a space by determination of free subareas or subspaces (Snellen, U. S. Patent 5,430,831).

#### 5.1 Applicants’ set of claims consists of claims 1-34.

Independent claim 1 is directed to a computerized method of optimized placement of items in a bounded region. This claim identifies the distinct step of: “selecting a case to be packed with one or more of the items in the list of items to be packed, wherein the selecting the case comprises determining a desired average volume per case and selecting the smallest of the cases available to be packed that comprises a volume in excess of the desired average volume per case”.

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Because the closest prior art does not appear to teach or suggest the determination of a desired volume per case and the selection of the smallest of the available cases to be packed that exceeds the desired volume, claims 1-34 are deemed allowable.

6. Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samuel Broda, whose telephone number is (571) 272-3709. The Examiner can normally be reached on Mondays through Fridays from 8:00 AM – 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kevin Teska can be reached at (571) 272-3716. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist, whose telephone number is (703) 305-3900.



**SAMUEL BRODA, ESQ.**  
**PRIMARY EXAMINER**